AUTHOR INDEX

A

Abraham, E. P., 217, 223, 226, 250
Abrams, A., 131, 132, 266
Abrams, R., 179, 185, 186
Adams, A. R. D., 248
Adams, G. A., 167
Adams, J. M., 368
Adams, J. W., 325
Adler, E., 143
Ainley, A. D., 246
Ainsworth, G. C., 88, 91
Albert, A., 174, 250
Alderton, G., 194
Aleppo, P. L., 326
Alexander, E. W., 219
Alexander, H. E., 272
Alexeeva, T. S., 88
Allen, H. E., 380
Allen, S. J., 254
Allfrey, V., 201
Allison, C. C., 66, 67, 73, 74
Alloway, J. L., 21, 22
Almon, L., 311, 322
Alverson, C., 242
Alving, A. S., 56, 57
Amann, P. F., 169
Ambrose, A. M., 207
Amoss, H. L., 173
Amspacher, W. H., 326
Andersen, A. A., 167
Anderson, C. F., 335, 345
Anderson, E. H., 127
Anderson, E. J., 93
Anderson, H. H., 194
Anderson, H. W., 88, 89
Anderson, S. G., 356, 369
Anderson, T. F., 275
Anderson, T. G., 315
Andresen, N., 2
Andrewes, C. H., 352, 368
Andrewes, F. W., 24
Anfinsen, C. B., 102, 243, 246
Angier, R. B., 118, 150
Angrist, A., 324
Anigstein, L., 345, 346
Anker, H., 194
Anschütz, G., 45
Aparicio, J., 51
Apitz, K., 291
Appel, O., 76
Archibald, R. G., 52
Armangué, M., 295
Armstrong, C., 334, 341
Arnstein, H. R. V., 215
Asheshov, I. N., 215
Aspergreen, B. D., 174
Atkinson, N., 218, 221
Attenburrow, J., 208
Aubel, E., 116
Auhagen, E. 126
Avery, O. T., 21, 22, 38, 130, 131
Avery, R. C., 206
Avinery, S., 310

B

Backus, M. P., 210
Bader, M. N., 345, 346
Badger, G. M., 174
Baer, H., 222
Bail, O., 277
Bailey, A., 76
Bailey, J. H., 221, 223, 228, 252
Bailey, P. S., 249
Bailly, J., 196
Baker, J. A., 375
Baker, J. W., 129, 153
Baker, M., 247, 309, 311
Baker, Z., 176, 178, 179, 181, 187
Bald, J. G., 92
Baldwin, I. L., 168
Ball, E. G., 102, 243, 246
Ballif, L., 45
Bancroft, H., 311
Bandelin, F. J., 174
Bantz, A. C., 166
Barash, L., 326
Barbee, O. E., 79
Barber, C. A., 94
Barker, H. A., 115, 131
Barnes, B., 67
Barnes, J. M., 185, 186
Barnes, L. A., 23, 315, 320
Barnes, M. J., 314, 317
Barnes, M. W., 380
Barry, V. C., 219, 220
Bartner, E., 276
Barton-Wright, E. C., 119
Bass, K., 317
Bastianelli, G., 43
Baumann, C. A., 129
Bawden, F. C., 88, 92, 94
Bax, S. N., 258
Bayne-Jones, S., 334
Beadle, G. W., 68, 123, 124, 127, 128, 145
Beale, H. P., 86
Beard, D., 275, 354, 365
Beard, J. W., 275, 291, 354, 365
Beck, M. D., 371
Becker, E. R., 7
Becker, T., 74
Beckmann, C. O., 270
Bedford, P. D., 254
Bedson, S. P., 370
Beecher, F. S., 88, 89
Beerstecher, E., 129
Begg, A. M., 336, 339
Beglinger, E., 161
Behan, M. A., 301
Bělař, K., 1, 3, 4, 5
Bell, E. J., 342
Bell, F. R., 258
Bell, P. H., 251
Bell, T. T., 127, 130
Bellamy, W. D., 120, 150
Bender, M., 270
Bendlich, A., 269, 270
Benedict, R. G., 194, 196, 210
Bengston, I. A., 335, 336, 340, 341, 342, 343
Benham, R. S., 226
BenHarel, S., 45
Bennett, B. L., 338, 341
Bennett, C. W., 93
Benoist, D., 216
Bergström, S., 199
Berkman, S., 121, 226
Berliner, R., 246, 247
Berliner, R. W., 244
Bernstein, H., 180
Bessy, O. A., 335
Beveridge, G. W., 372, 373
Beveridge, W. I. B., 354
Bevilacqua, E. B., 270
Bevilacqua, E. M., 270
Bewley, W. F., 91
Bezer, A. E., 269, 270, 298
Bianchi, C., 51
Biecheler, B., 11
Bielig, H. J., 181
Bier, O. G., 277
Bigger, J. W., 327
Bignami, I., 43
Bilford, H. R., 159
Binder, M., 311
Binkley, F., 152, 309, 311, 318
Bird, O. D., 118
Bird, W., 245
Birkeland, J. M., 86, 175, 178, 180, 181, 182, 228

Biscoe, J., 88
Bissell, H. D., 221
Bjørneboe, M., 275, 294
Black, J., 312, 314, 315
Black, L. M., 94, 95
Blackwell, E. M., 75
Blake, F. G., 207 375
Blakemore, F., 35
Blanchard, K. C., 246, 250
Blanchard, M., 150
Bland, J. O. W., 370
Blankmeyer, H. C., 159
Blinnikova, E. I., 225
Bliss, E. A., 125
Blom, R. H., 167
Bloom, E. S., 118
Bloom, W., 45
Bloom, W. L., 277, 278, 279, 280, 284, 285
Blubaugh, L. V., 179, 180
Blum, L., *see* Emerique-Blum, L.
Blumenfeld, M. D., 169
Bøe, J., 133
Böhme, R. W., 92
Bohonos, N., 118, 203
Boissevain, C. H., 217
Boivin, A., 131, 309, 310, 311, 322
Bojlén, K., 315
Boldt, M. H., 301
Bonaba, J., 326
Bonanto, M. V., 297, 299, 300
Bondi, A., Jr., 182, 226, 252
Bonner, D., 121, 128, 129, 143, 145, 146, 153
Boor, A. K., 214
Boothe, J. H., 118, 150
Borek, E., 123, 144
Borg, A. F., 176, 314, 317
Borlaug, N. E., 74, 79, 80, 81
Borman, E. K., 309, 311, 320, 321
Borner, D. H., 132, 267
Bornstein, S., 37, 309, 320, 323, 325, 326
Bose, S. R., 217
Botjes, J. O., 92
Botts, C. W., 179, 180
Botwright, W. E., 183, 184
Bovarnick, M. R., 249
Bower, A. G., 327
Bowman, G. W., 6
Boxer, J., 198
Boyd, J. S. K., 256, 312, 314, 315, 317, 318, 319, 327
Boyd, M. F., 44, 45, 57
Boyd, W. C., 263, 277
Brace, W. M., 351, 367, 368, 369
Brachon, S., *see* Villeneuve-Brachon, S.
Brackett, S., 246, 247
Bradbury, F. R., 178
Bradel, S., 187
Bradley, W. H., 368
Brandes, E. W., 93
Branham, S. E., 268, 317
Braun, H., 311
Braunshtein, A. E., 121, 148
Brazhnikova, M. G., 197, 204
Brekenfeld, 186
Brenner, D. W., 321, 326
Brewer, C. M., 175, 176, 178, 180, 181
Brewer, C. R., 117, 123, 132, 146
Brian, P. W., 208, 215, 216
Bridgman, W. B., 270, 276
Brierley, P., 91
Brierley, W. B., 66
Briggs, G. M., 125
Brink, N. G., 203
Brodie, B. B., 244
Brodrick, C. I., 208
Brooks, R. F., 181, 183
Brown, A. M., 71, 72, 74
Brown, C., 309, 311
Brown, C. S., 165
Brown, G. B., 144
Brown, H. P., 8
Brown, P. N., 358
Brown, R., 272
Brown, W., 66, 67, 68, 76
Brown, W. E., 185
Browning, C. H., 250, 258
Bruce, W. F., 208
Bruckner, V., 150, 278, 285
Brug, S. L., 51, 54
Bruner, D. W., 24, 25, 26, 33, 309, 311, 320, 321, 323
Bryan, C. S., 187
Buchanan, J. M., 115
Buchwald, H., 316
Buck, J. S., 221
Buddingh, G. J., 327
Buehler, H. J., 132, 267
Buhlman, F. C., 313
Bukantz, S. C., 277
Bull, C. G., 173
Bull, D. R., 354, 368
Burdon, K. L., 195
Burk, D., 123, 142
Burkey, E. L., 295
Burkholder, P. R., 169, 201, 219
Burkholder, T. M., 195
Burnet, F. M., 292, 305, 354, 356, 357, 368, 369
Burnett, G., 91, 93
Burris, R. H., 143
Burt, R. L., 13
Bush, M. T., 205, 206
Butler, B., 121, 149
Butler, T., 246, 247

C

Cain, C. K., 199
Caldis, P. D. 63
Caldwell, J. 88
Calhoun, M. L., 325
Calkins, D. G., 118
Calkins, G. N., 1
Callender, G. R., 311
Callow, B. R., 323
Callow, R. K., 195, 196
Cambournac, F. J. C., 51
Camien, M. N., 117, 146, 151
Campagna, E., 73
Campbell, A. H., 215
Cantrell, W., 45, 46, 48
Carlson, H. J., 221
Carlson, M., 317
Carmichael, J., 258
Carpenter, C. W., 204
Carpenter, F. H., 213
Carpenter, P. L., 312, 328
Carrau, A., 326
Carroll, C. J., 199
Carsner, E., 93
Carter, H. S., 314
Casals-Ariet, J., *see* Casals, J.
Casals, J., 295, 296, 303, 304
Casini, G., 52
Cassel, R. C., 77, 78, 80
Castaneda, M. R., 334, 335, 336, 343
Cavallito, C. J., 221, 223, 228, 252
Cavell, K., 317
Chambers, L. A., 360, 363
Chang, K. P. S., 327
Chang, S. L., 184
Chapman, J., 354
Chapman, O. D., 187
Chargaff, E. J., 340
Chase, J. H., 275, 293

Chase, M. W., 294, 295, 296, 298, 299, 301, 305
Chattaway, F. W., 119
Chatton, E., 9, 13
Cheever, F. S., 311, 324
Chelaresco, M., 45
Cheldelin, V. H., 130, 143, 163
Chen, B. L., 224
Chen, H. K., 183
Chen, S. L., 224
Chen, T. T., 14
Chen, W. K., 224
Cherry, W. B., 23, 309, 311
Chester, K. S., 86, 88, 91, 92
Chilton, S. J. P., 62, 69, 70
Ching, R. E., 311, 324
Chona, B. L., 94
Chopra, N. N., 152
Christensen, C., 66
Christensen, H. N., 151
Christensen, J. J., 62, 63, 64, 65, 66, 67, 68, 69, 73, 74, 76, 79, 81
Christenson, G. L., 226
Chu, W. C., 207
Ciuca, M., 45
Claff, C. L., 13
Clancy, C. F., 338
Clark, C. F., 92
Clark, E., 354, 357
Clark, E. M., 336, 339
Clark, J. H., 246
Clark, M. T., 249
Clarke, G. E., 185
Clayton-Cooper, B., 185, 186
Cleveland, L. R., [illegible], 11
Clifton, C. E., 131
Coatney, G. R., 55, 56
Cochran, L. C., [illegible]
Codington, J. F., [illegible]49
Coffin, G. S., 301
Coggeshall, L. T., 45, 56, 247
Coghill, R. D., 165, 166, 209, 210, 211, 212
Cohen, [illegible]. L., 254
Cohen, F. P., 148
Cohen, S. S., 275, 340, 367
Cohlan, S. Q., 326
Cole, Q. P., 144
Collier, H. O. J., 254
Collier, J., 8, 10
Collins, J. L., 185, 186
Collyer, M. L., 247
Colwell, C. A., 252
Colwin, L. H., 14
Conn, J. E., 227, 252
Consden, R., 151
Consulich, D. B., 118
Cook, A. H., 215
Coonradt, V. L., 68
Coons, G. H., 63, 93
Cooper, B., *see* Clayton-Cooper, B.
Cooper, M. L., 311, 318, 319
Cooper, W. C., 55, 56
Copley, M. J., 225
Corey, M., 376
Corradetti, A., 54
Corradetti, B., 54
Corrigan, F. V., 309, 311
Cosulich, D. B., 150
Cotter, R. U., 67, 71, 74
Couch, J. F., 225
Coudert, J., 51
Coulaud, E., 295
Coulson, I. J., 343
Coulston, F., 43, 44, 45, [illegible]5, 48, 49, 53, 56, 57
Cox, H. R., 334, 338, 342
Coy, N. H., 276
Coyne, F. P., 207
Cragg, L. H., 264
Craig, L. C. 214
Craige, B., 56, 57
Craigie, J., 322, 323, 336, 337, 339, 342
Craigie, J. H., 71
Cross, J. B., 8, 10
Crowfoot, D. M., 223
Crowley, J. H., 354, 369
Cromartie, W. J., 277, 278, 279, 280, 284, 285
Cruickshank, R., 344
Cunha, A., 51
Cunha, R., 275
Cunkelman, J. W., 187
Cunliffe, A. C., 133
Cunningham, J., 28, 29, 30, 31, 34, 35, 40
Curd, F. H. S., 56, 248, 249, 250
Curnen, E. C., 264, 358, 375, 376, 380
Curran, H. R., 116
Curtis, P. J., 215, 216
Cutter, W. W., 185, 186

D

Daniel, L. F. 119
Danielli, J. F., 237, 253
Danielli, M., 237, 253
Daniels, M. L., 6
Daniels, T. C., 219
Danilewsky, B., 43
D'Arcy Hart, P., 195, 196
Darley, E., 63
da Silva, E. M., 52
Davey, D. G., 54, 56, 247, 248, 250
Davey, M. E., 250
Davey, T. H., 248
Davide, H., 199
Davies, B. D., 303
Davies, F. W., 66, 67, 68, 69
Davis, B. D., 116
Davis, L. R., 6
Davis, W. R., 167
Dawes, E. A., 129, 153
Dawson, J., 129, 153
Dawson, J. A., 3
Dawson, M. H., 21, 22, 23
de Assis, A., 312, 317
De Becze, G., 163, 167
de Buck, A., 44
de Chezelles, N., 116
de Court, P., 45
De Eds, F., 207
Deinet, A. J., 249
Delauny, A., 310
Delbruck, M., 275
De Meillon, B., 239
Demerec, M., 40
Depasse, E., 168
De Ropp, R. S., 213
Desnuelle, P., 153
Deutsch, H. F., 276
Dewey, V. C., 103
Diachun, S., 90
Dibblee, D., 177
Dibblee, D. D., 179, 180, 181, 184
Dickerman, G. K., 162, 164
Dickinson, H. L., 206
Dickinson, S., 68
Diefendorf, H. W., 372
Dienes, L., 296
Dietz, C. C., 226, 252
Diller, W. F., 13, 14,
Dimick, K. P., 194, 197
Dimock, A. W., 68
Ding, E., 344
Dingle, J. H., 354, 365, 378
Dittmer, K., 127, 129,144
Dixon, M., 253
Doak, B. W., 311, 318
Dobell, C., 4, 11, 38
Dobzhansky, T., 39
Dochez, A. R., 357, 358
Dodd, K., 313
Dodds, E. C., 237
Dodge, B. O., 68
Doering, W. E., 214
Doermann, A. H., 146

Doisy, E. A., 199
Dolby, D. E., 119
Dole, V. P., 272
D'Oliveira, B., 67
Domagk, G., 173, 176, 178, 181, 185, 239
Donaldson, E. M., 254
Donovick, R., 201, 337
Doolittle, S. P., 88, 89, 224
Dorfman, A., 121, 124
Dorrell, W. W., 168
Doudoroff, M., 115, 131, 143
Dougherty, T. F., 275, 293
Doull, J. A., 311
Doyle, W. L., 1, 102
Drasher, M. L., 310
Dreyfus, R., 214
Duan, R. B., 346
DuBois, A. S., 174, 175, 176, 177, 178, 179, 180, 181, 184
Dubos, R. J., 115, 116, 174, 176, 179, 196, 197, 214, 267
Duboscq, O., 8
Dudgeon, J. A., 368
Duncan, J. McK., 185, 186
Duncan, T. G., 311
Dunn, C. G., 180, 186
Dunn, H. O., 314, 315
Dunn, M. S., 117, 146, 151
Durand, P., 334
Duran-Reynals, F., 133
Dusi, H., 104, 107, 110, 111
Dutcher, J. D., 206, 208
Duthie, E. S., 250, 254
du Vigneaud, V., 123, 127, 129, 142, 144, 213
Dyar, M. T., 176, 178
Dyer, H. A., 251

E

Eagle, H., 195, 217, 250
Earle, D. P., 244
Eaton, B. B., 277
Eaton, M. D., 368, 370, 371, 373, 374, 376
Ecke, R. S., 344, 345
Eddie, B., 371
Eddin[illegible], A. H., 62
Eddy, B., 20, 21
Edgerton, C. W., 70
Edsall, G., 291
Edsall, J. T., 276
Edson, N. L., 146
Edwards, P. R., 23, 24, 25, 26, 33, 309, 311, 320, 321, 323
Edwards, S. J., 183, 187
Efron, A., 167
Eggleston, L. V., 129, 153
Ehrich, W. E., 292, 293
Eichelberger, L., 56, 57
Eide, C. J., 62, 63, 65, 66, 67, 68
Eiler, J. J., 219
Eisenman, W., 166, 169
Eisman, P. C., 229
Eklund, H. W., 131, 132, 151, 266
Eldred, F. R., 174
Elks, J., 208
Elliot, D. F., 208
Elliott, S. D., 152, 272
Ellis, G., 127, 129
Elrod, R. P., 317
Elsden, S. R., 116
Elvehjem, C. A., 117, 125, 129, 146
Emerique-Blum, L., 109
Emerson, R. L., 159, 203
Emery, W. B., 119
Emmart, E. W., 204
Enders, J. F., 354
Engley, F. B., 319
English, J. P., 144, 246
Epstein, A. K., 174
Epstein, E., 291
Epstein, S., 174, 180
Erb, N. M., 159, 160
Erdmann, R., 14
Erdos, L., 278
Erichsen, L., 216
Ericsson, E. Q., 162
Eriksson, J., 62
Euler, H. v., 143
Evans, A. W., 95
Evans, C. A., 359
Evans, D. G., 133, 273
Evans, E. A., 251
Evans, F. R., 13, 116
Evans, T. H., 269
Eyquem, A., 51

F

Fahrenbach, M. J., 118, 150
Fainshmidt, O. I., 201
Fair, G. M., 184
Fairbrother, R. W., 360
Fairley, N. H., 45, 54, 55, 56, 244, 248, 256
Falconer, J. S., 264
Fanelli, A. R., 122
Farsetta, K., 311, 312, 314, 315, 318
Feemster, R. F., 324
Feeney, R. E., 143
Feldman, H. A., 56
Felix, A., 311, 322, 323, 326
Feller, A. E., 354, 365
Felsen, J., 309, 312, 313, 315, 316, 318, 319, 326
Felsenfeld, O., 320, 326, 328
Ferguson, W., 317
Feustel, I. C., 164, 197
Fevold, H. L., 194, 197
Filachione, E. M., 167
Fildes, P., 128, 144, 239, 240, 251
Filho, A. M., 317
Finland, M., 379, 380
Finlay, A. C., 169
Finley, H. E., 13, 14, 15
Fischel, E. E., 346
Fischer, C. C., 186
Fischer, G. W., 77
Fisher, C. H., 167
Fitzpatrick, F. K., 336, 344
Flexner, S., 325
Flinn, L. B., 346
Flor, H. H., 63, 72, 73, 80, 81
Florey, H. W., 203, 207, 217
Florey, M. E., 254
Flosdorf, E. W., 264
Flynn, E. H., 201, 203
Folkers, K., 201, 203
Follensby, E. M., 277
Fonseca, F., 51
Fontaine, M., 169
Fontaine, T. D., 224
Forbes, I. L., 94
Forman, L., 186
Forsyth, W. L., 312, 318
Foss, M. E., 215
Foster, A. Z., 286
Foster, J. W., 195, 204
Foter, M. J., 176, 178, 179, 180, 181, 182
Foust, C. E., 120
Fowler, E. H., 31, 36, 37, 38, 40
Fox, C. L., 251
Fraenkel-Conrat, H. L., 197
Francis, T., Jr., 351, 353, 354, 358, 360, 367, 368,

369, 370, 371, 375, 379
Frankl, W., 146
Fraser, A. G. L., 29, 30, 31, 34, 35, 40
Fratkin, S. B., 167
Frayer, J. M., 183
Frazier, W. C., 163
Freed, M., 278, 284
Freeland, J., 151
Freelander, B. L., 180
Freund, J., 276, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305
Fried, J., 201, 203, 211
Frieden, E. H., 193
Friedewald, W. F., 298, 301, 362, 363
Fries, N., 123
Friewer, F., 317, 318
Frobisher, M., 319
Fromageot, C., 153
Fuller, A. T., 174
Fuller, R. C., 103, 118
Fulmer, E. I., 160, 162, 166
Fulton, F., 334, 336, 339, 341
Fulton, M., 322

G

Gaby, W. L., 199
Gaddum, J. H., 250
Gailey, F. B., 165
Gaines, E. F., 79
Gale, E. F., 120, 121, 122, 146, 147, 148, 151, 152, 153, 154, 226
Gall, L. S., 310, 322, 326, 327
Gallagher, F. H., 159
Garcia, E. Y., 51, 52
Garcia-Rada, G., 80
Gardner, A. D., 185
Garrod, L. P., 254
Gassner, G., 67
Gatenby, J. B., 2, 9, 12
Gattani, M. L., 64
Gause, G. F., 197, 198, 204
Geiger, J. W., 267
Geiger, W. B., 201, 226, 227, 252
Geiman, Q. M., 102, 243, 246
Gell, P. G. H., 238
Genghof, D. S., 295
George, M., 224
Gerber, I. E., 217
Gerhardt, P., 168
Gershenfeld, L., 178, 179, 180
Gerwe, E. G., 179
Gibby, I. W., 176, 178, 181, 182
Giddings, N. J., 93
Giese, A. C., 127
Gildemeister, E., 336
Gilder, H., 102, 123
Giles, N. H., 123
Gillespie, J. M., 240
Gilliam, A. G., 344, 345
Gilliver, K., 217
Giovannola, A., 44
Gisvold, O., 223
Gladstone, G. P., 143, 144, 277, 282, 283, 286
Glaser, L., 45
Gledhill, A. W., 353
Glenny, A. I., 295
Glover, R. E., 196, 353, 368
Gober, M., 314
Goebel, W. F., 237, 264, 271, 309, 311, 318
Goering, K. J., 160
Goeters, W., 314, 318
Gold, H., 344
Goldacre, R. J., 250
Goldstein, F., 45
Golgi, C., 44
Gonzales, L. M., 311, 318
Gonzalez, P., 295
Goodall, R. R., 212
Goodman, S. C., 195
Goodpasture, E. W., 325
Goorley, J. T., 195
Gordon, A. H., 151
Gordon, F. B., 371
Gordon, W. L., 63, 67
Gore, T. S., 207
Gormsen, H., 275, 294
Gorter, A., 153
Goss, R. W., 95
Goth, A., 205, 206, 224, 227
Gould, R. L., 347
Gowen, J. W., 325
Grabar, P., 278, 282
Graber, R. P., 201
Graham, T. W., 65, 74, 76, 79
Grand, L., 153
Granick, S., 102, 123
Grant, C. W., 346
Grassberger, G., 296, 304
Grassé, P. P., 8, 9
Grassi, B., 43, 44
Gratia, A., 86
Gray, P. P., 197
Greaney, F. J., 66
Green, D. E., 116, 121, 148, 150, 152, 264
Green, M. N., 122, 129
Green, R. D., 276
Green, S. R., 226
Green, T. W., 178, 180, 181, 182
Greenhut, I. T., 117, 146
Greif, R., 195
Greiff, D., 335, 347
Grell, K. G., 7
Grey, C. H., 127
Griffith, F., 21
Grimm, E., 293
Grob, D., 273
Gross, M., 217
Grossberg, D. B., 132, 151, 267
Grossowicz, N., 146
Groupé, V., 342, 360, 363
Grove, J. P., 215
Grover, M. L., 254
Grubaugh, K. K., 222
Guggenheim, K., 325
Guilliermond, A., 169
Guirard, B. M., 117, 143
Guiteras, A. F., 183
Gulbransen, R., 250
Gullioud, M., 124
Gunderson, M. F., 185
Gunness, M., 149, 151
Gunnison, J. B., 219
Gunsalus, I. C., 120, 121, 128, 145, 148, 150
Gunther, G., 143
Günther, O., 186

H

Haagen, E., 336
Haas, E., 133
Habel, K., 268, 317
Hafez, M. M., 129, 153
Hafstad, G. E., 62, 63
Hahn, L., 134
Hajny, G. J., 161, 162
Halbert, S. P., 298, 303, 311, 318
Haldane, J. B. S., 103
Hale, F., 121, 149
Hale, W. M., 353, 359
Hall, C. E., 8, 11
Hall, D. A., 119
Hall, R. P., 9, 102
Hall, S. R., 8, 10
Halsey, H. R., 4
Ham, T. H., 379
Hamilton, H., 335, 347
Hamilton, P. M., 327

Hammerschlag, H., 264
Hammond, D., 6
Hamre, D. M., 201, 372
Hanby, W. E., 150
Hanford, V. L., 373
Hanna, W. F., 72, 74
Hannan, M., 161, 162
Hansen, E. L., 194
Hansen, H. N., 66, 68, 76
Hao, L. C., 160
Happold, F. C., 119, 129, 153
Hardin, G. J., 219
Hardy, A. V., 256, 312, 313, 314, 315, 319, 326
Hare, R., 352, 354
Harington, C. R., 238
Harnest, G. H., 249
Harper, G. J., 133
Harris, B. R., 174
Harris, C. H., *see* Stuart-Harris, C. H.
Harris, E. E., 161, 162
Harris, E. H. R., 344
Harris, J. O., 208
Harris, J. S., 124, 125, 143, 144
Harris, T. N., 264, 292, 293
Harrison, J. A., 31, 36, 37, 38, 40
Harrison, R. W., 33, 176, 178, 179, 181, 187
Hart, E. B., 125
Hart, H., 63, 78
Hartelius, V., 130, 143
Hartmann, M., 173
Haskell, T. H., 252
Hassebrauk, K., 63
Hastings, A. B., 115
Hauschka, T. S., 7
Hauser, E. D. W., 185, 186
Havard, R. E., 248
Havinga, E., 126, 127
Hawk, W. D., 214
Hawking F., 242, 243
Hayes, C., 3, 4
Hayes, H. K., 78
Hayman, J. M., 245
Hays, E. E., 199
Hazel, G. R., 211, 212
Heatley, N. G., 208, 222, 223
Heckly, R. J., 264, 277, 278, 279, 280, 284, 285
Hedeman, L. P., 187
Hedrick, L., 184
Hegsted, D. M., 146, 151
Hehre, E. J., 131
Heidelberger, M., 173, 263, 271, 272, 276, 277
Heilman, D., 182
Heilman, F. R., 372
Heinemann, P. G., 180
Heing, E., 325
Hellerman, L., 249
Hellstrom, V., 143
Helmsworth, J. A., 185
Helwig, H. L., 179, 180
Hemming, H. G., 208, 215, 216
Hems, B. A., 208
Henderson, J. C., 4
Henderson, R. G., 336, 340, 343
Henle, G., 301, 359, 360, 363, 364
Henle, W., 301, 359, 360, 363, 364
Henriksen, S. D., 275
Henry, C., 45
Henry, J., 226, 240
Henry, R. J., 123, 124, 127, 226
Herbst, E. J., 117, 146
Herbst, R. M., 148
Herrell, W. E., 182, 372
Herrick, A. J., 208
Herrnheiser, H., 325
Hervey, A., 218
Herwick, R. P., 211
Heuser, G. F., 119
Hewitt, W. L., 214
Hibbert, H., 269
Hickey, R. J., 162
Higuchi, K., 165, 212
Hildebrandt, F. M., 159, 160
Hilleman, M. R., 371
Hills, G. M., 121, 154
Himelick, R. E., 174
Himes, A. T., 242
Hines, G. E., Jr., 170
Hines, L., 74, 77, 78, 80
Hinshaw, W. R., 323
Hinshelwood, C. N., 115
Hirsch, A., 200
Hirschhorn, E., 64
Hirschmann, D. J., 194
Hirst, E. L., 215
Hirst, G. K., 354, 355, 358, 359, 368
Hite, K. E., 133
Hobby, G. L., 226
Hodes, H. L., 327
Hodges, J. H., 328
Hodgson, A. E., 326
Hoffhine, C. E., Jr., 201
Hoffmann, C. E., 174, 178
Hogeboom, G. H., 214
Hoggan, I. A., 91
Holden, M., 222
Hollande, A. C., 9, 10, 219
Holley, R. W., 213
Holmes, F. O., 89, 90
Holmes, L. F., 179
Holst, E. C., 198
Holton, C. S., 66, 67, 72, 73, 78, 79, 81
Hoogerheide, J. C., 179, 181
Hook, A. E., 275
Hooker, S. B., 277
Hooker, W. J., 222
Hooper, J., 347
Hopkins, D. L., 2
Hormaeche, E., 326
Horowitz, N. H., 127, 146
Horsfall, F. L., Jr., 264, 358, 360, 375, 376, 380
Hosmer, E. P., 295, 296, 303
Hotchkiss, R. D., 174, 176, 225
Hottle, G. A., 131, 132, 266
Houget, J., 116
Hough, R. G., 302
Houlahan, M. B., 127
Housewright, R. D., 124, 226
Hovasse, R., 9
Howard, J. W., 346
Howard, M. E., 375
Howe, A. F., 117, 146
Hoxworth, P. I., 185
Hoyle, L., 360, 363
Huber, D. A., 179, 185, 186
Hucker G. J., 181, 183
Hudack, S. S., 292
Hudson, N. P., 336
Huebner, R. J., 334, 341, 342
Huff, C. G., 43, 44, 45, 46, 48, 49, 53, 56, 57
Hughes, C. O., 246
Hughes, D. E., 121
Hughes, D. L., 183, 187
Hukui, T., 7
Hull, L. W., 264
Hultquist, M. E., 118, 150
Humfeld, H., 164
Humphrey, J. H., 134
Humphreys, E. M., 194, 196
Hungate, M. G., 127
Hunt, N. R., 80
Hunter, G. J. E., 146

Huntington, G. I., 178
Hutchings, B. L., 118, 146, 150
Hutchins, L. M., 95
Hutner, S. H., 112, 117, 123, 310
Hutton, E. L., 56
Hutyra, F., 323, 324
Huyck, C. L., 178, 187
Hyde, R. R., 354

I

Ibsen, M., 179
In Byam, W., 52
Irons, J. V., 347
Irving, G. W., Jr., 224
Isanos, M., 45
Isbell, H., 120, 124
Ivanovics, G., 150, 278, 285

J

Jackson, E. B., 341, 347, 380
Jackson, E. R., 242
Jacobs, F. A., 199
Jacobs, J., 295
Jacobs, P. B., 159, 161
Jacobs, W. A., 173
Jacobson, M. A., 319
Jagger, I. C., 91
Jakus, M. A., 8, 11
James, S. P., 44, 45, 52, 56, 57
Jamieson, M. C., 183
Jann, G. J., 194
Jansen, E. F., 194
Jarvis, F. G., 165, 212
Javillier, M., 109
Jennings, H. S., 32, 40
Jennings, M. A., 203, 207, 208, 217
Jensen, J. H., 85, 88, 94
Jepps, M. W., 5
Jerchel, D., 174, 176
Jirovec, O., 7
Johann, H., 76
Johansen, G., 130
Johns, M. E., 214
Johnson, B. A., 194, 195
Johnson, B. C., 118
Johnson, E. A., 195
Johnson, E. M., 87, 89, 91, 94
Johnson, J., 87
Johnson, J. R., 208
Johnson, M. J., 165, 166, 167, 168, 210, 212
Johnson, S. J., 265
Johnson, T., 63, 66, 67, 71, 72, 74
Johnson, W. H., 13
Johnston, C. O., 67
Jollos, V., 64
Jones, H., 374
Jones, H. A., 339
Jones, H. E., 311
Jones, H. P., 360, 370, 372, 373
Jones, J. K. N., 215
Jones, L. K., 88, 93
Jones, L. R., 199
Jones, M., 358
Jones, M. J., 124, 125, 126, 150
Jones, R., 56, 57
Jones, T. R. L., 254
Jordan, D. O., 178
Jordan, J., 311
Joseph, A. E., 223
Joselyn, D. A., 174, 179
Joyce, B. J., 321, 326
Joyet-Lavergne, P., 6
Joyner, L., 334, 341
Julius, H. W., 126, 127
Jump, J. A., 160
Junowicz-Kocholaty, R., 209

K

Kabat, E. A., 263, 269, 270, 271, 275, 276, 270, 278, 286, 298, 301, 317
Kägi, H., 173
Kaiser, H., 286
Kalnitsky, G., 116
Kalter, S. S., 187
Kane, C. A., 245
Kane, J. H., 169
Kaplun, T., 214
Karow, E. O., 168
Karr, H. V., 370
Kass, E. H., 133
Kassanis, B., 94
Katzman, M. K., 174
Katzman, P. A., 199
Kauffmann, F., 25, 33, 309, 311, 319, 320, 322, 324
Kausche, G. A., 89
Kavanagh, F., 201, 218
Kay, M. W., 12
Kayser, 186
Kazin, A. D., 197
Keefer, C. S., 203
Kegeles, G., 131, 132, 266, 267, 280
Keitt, G. W., 67, 69, 70, 74
Kelleher, M. F. H., 245
Keller, H. M., 311, 318, 319
Kelner, A. J., 209
Kemp, M., 183, 187
Kempf, A. H., 182
Kendall, F. E., 271
Kennaway, E. L., 250
Kenner, B. A., 182
Kenney, A. S., 375
Kent, J., 208
Kent, J. F., 277
Kereszteszy, J. C., 118
Kernkamp, M. F., 62, 63, 65, 66
Kessel, J. F., 255, 317
Kessler, W. R., 3
Kidd, J. G., 292
Kidder, G. W., 13, 103, 118
Kikuth, W., 43, 44, 45, 47, 48, 49
Kimmelman, L. J., 40
King, H., 246
King, J. D., 248
King, M. E. M., 123
King, T. H., 65, 66
Kinnaman, C. H., 313
Kirby, H., 8, 10, 11
Kirchner, F. K., 223
Kirschbaum, W. R., 57
Kita, D. A., 168
Kitchen, S. F., 57
Kivela, E. W., 181, 183
Klarmann, E. G., 177, 180, 181
Klein, B. M., 13
Klein, M., 40, 179, 185, 186, 187, 322
Kligler, I. J., 325
Klimek, J. W., 228
Knight, B. C. J. G., 102, 127, 133, 144, 264, 273
Knight, C. A., 88, 89, 187, 273, 274, 354, 362, 364, 365
Knipling, E. F., 239
Knipschildt, H. E., 311
Knouf, E. G., 327
Koch, K. L., 93
Koch, P. K., 310
Kocholaty, W., 209
Koepfli, J. B., 247
Koerber, W. L., 201, 211
Köhler, E., 92, 94
Kohn, H. I., 124, 125, 143, 144
Kolachov, P. J., 159

Kolb, E. M., 375
Kolloff, H. G., 174
Kooi, E. R., 166
Kopeloff, L. M., 298, 301
Kopeloff, N., 298, 301
Koreniako, A. I., 201, 205
Koser, S. A., 121, 124
Kozloff, E. N., 9
Kraemer, E. O., 270
Kramer, G. B., 185, 186
Krampitz, L. O., 116, 227
Krapcho, J., 246
Krassilnikov, N. A., 201, 205
Krebs, H. A., 129, 153
Kritsman, M. G., 121, 148
Krog, A. J., 182, 183
Krueger, A. P., 187
Kudo, R. R., 1, 3, 5, 7, 11
Kuehl, F. A., Jr., 203
Kuh, E., 118, 150
Kuhn, R., 174, 176, 181, 242
Kuhns, D. M., 315
Kumler, W. D., 219
Kunkel, L. O., 85, 86, 88, 90, 95
Kurotchkin, T. J., 344
Kurung, J. M., 214
Kurth, E. F., 163

L

Lacey, M. S., 215
Lackey, C. F., 93
Lackman, D. B., 372, 373
Laird, R. L., 49, 56
Lal, T. B., 92
Lamanna, C., 122, 131, 132, 151, 266, 267
Lampen, J. O., 124, 125, 126, 144, 150
Lancefield, R. C., 272
Landor, J. V., 326
Landsteiner, K., 263, 295, 296, 298, 299, 301, 309, 310, 380
Landy, M., 124
Lang, H. C., 174
Langford, A. N., 69
Langford, M. H., 69, 70, 74
Langlykke, A. F., 194, 196
Large, D. T. M., 312
Larsen, A., 118, 146
Larson, R. H., 92
Lassen, H. C. A., 325, 326
Lauffer, M. A., 358
Laveran, A., 43
Lavergne, P., *see* Joyet-Lavergne, P.
Lavietes, P. H., 245
Lazarus, A. S., 323
Leake, N. H., 249
LeBeau, F. J., 95
LeClerg, E. L., 66
Lederberg, J., 124, 127, 128
Ledingham, J. A., 216
Lee, M. E., 242
Lees, H., 116
Lehault, Y., 131
Lehn, G. J., 183, 184
Leidy, G., 272
Leloir, L. F., 121, 148
Lemetayer, E., 295, 296
Lemon, J. G., 118
Lenert, T. F., 226
Lennette, E. H., 360
Leonard, C. S., 251
Leonard, R. H., 162, 167
Leonian, L. H., 66, 75
Leslie, J. D., 167
Levaditi, C., 27, 216
Levens, J. H., 354
Levi, A. A., 212
Levine, M. N., 62, 63, 67, 70, 71, 74, 78
Levinson, S. O., 317, 318
Levitov, M., 214
Levowitz, D., 184
Lewis, C., 122
Lewis, J. C., 194, 196, 197
Lewis, M. R., 291
Lewis, P. A., 296
Libby, R. L., 127, 268
Lichstein, H. C., 121, 133, 148, 199
Liebmann, A. J., 163, 167
Liesche, W., 3
Light, J. S., 327
Lightbody, H. D., 194, 196
Limasset, P., 92
Lindquist, A. W., 239
Lindsay, A., 249
Link, L. P., 222
Linn, M. B., 88, 89
Lioia, N., 53, 54
Lipmann, F., 115, 273
Litchfield, J. T., 246
Little, J. E., 222
Livermore, A. H., 213
Locke, E. G., 162, 164
Lockwood, J. S., 203
Lockwood, L. B., 169
Loeb, R. F., 56
Loegering, W. Q., 63, 77, 78, 80
London, I. M., 245
Long, P. H., 125, 203
Longfellow, D., 311, 327
Longsworth, L. G., 264
Loomis, D., 296
Lourie, E. M., 27, 28, 36, 252, 254
Lovell, C. L., 167
Lucas, G. B., 70
Lucas, M. S., 13
Luckey, T. D., 125
Lucrezi, G., 51, 53
Ludwig, B. J., 251
Luippold, G. F., 311, 327
Lundeberg, K. R., 318
Lundquist, F., 275, 294
Lush, D., 292
Lutz, R. E., 249
Lwoff, A., 13, 102, 104, 107, 109, 110, 116, 127 243
Lwoff, M., 13, 103
Lyman, C. M., 121, 149

M

McCall, M., 252
McCalla, T. M., 177
McCarty, M., 21, 22, 23, 38, 39, 130, 131
McClean, A. P. D., 94
McClelland, L., 354
McCormick, J. R., 252
McCoy, E. F., 167
McCrea, J. F., 356
McCubbin, W. A., 80
McCullough, W. G., 117, 146
McDermott, K., 297, 305
MacDougall, M. S., 7
McElroy, O. E., 131, 132, 151, 266
McFarlane, J. A., 311
MacFarlane, J. O., 342
Macfarlane, M. G., 133, 273
MacFie, J. W. S., 44, 56
McGhee, W. J., 277, 278, 279, 284, 285
McGinnis, G. W., 315
McGowan, J. C., 208, 215, 216
Machacek, J. E., 66
McIlwain, H., 121, 122, 142, 241, 242, 250
McKee, A. P., 353, 359
McKee, R. W., 102, 243, 246
McKennis, H., Jr., 127, 129, 144
Mackenzie, D. M., 352
Mackenzie, G. M., 325, 326

McKinney, H. H., 85, 87, 88, 91
Mackinnon, D. L., 7
McLean, A. L., 315
MacLennan, J. D., 133
MacLennan, R. F., 12
MacLeod, C. M., 21, 22, 38
McLimans, W. F., 346
McMaster, P. D., 292
McMillan, M., 119
McNally, P. A., 219
McNeil, E., 323
Macow, J., 130, 149
MacPherson, C. F. C., 272
MacPherson, R. M., 183
Madden, A. H., 239
Madinaveitia, J., 248
Madison, C. R., 268
Maegraith, B., 248
Magee, C. J. P., 91
Magill, T. P., 353, 354
Magnuson, H. J., 217
Maier, E., 187
Maier, J., 246, 335, 345
Malcomson, M. E., 336, 339
Malkiel, S., 263
Mallmann, W. L., 180, 181, 182, 183
Manninger, R., 323, 324
Mantele, F., 174
Manwell, R. D., 45, 46
Marek, J., 323, 324
Marks, H. C., 251
Marmoston, J., 255
Marsh, W. S., 229
Marshak, A., 220
Marshall, C. G., 182, 183
Marshall, E. K., Jr., 203 246, 247
Marson, H. W., 246
Martin, A. J. P., 151
Martin, J. P., 94
Martin, T. A., 249
Martin, W. J., 65, 66, 73
Maschmann, E., 152
Mason, H. C., 378
Mast, S. O., 1, 2
Mathieson, J., 218
Matilla, V., 51
Matthews, C. B., 45
Mattick, A. T. R., 200
Matz, J., 94
Maxcy, K. F., 315
Maxwell, M., 250
Mayer, E., 264
Mayer, M. M., 277
Mayer, R. L., 229
Mayfield, C. R., 314
Maynard, J. T., 247
Mead, J. F., 247
Meglitsch, P. A., 4
Mehrlich, F. P., 75
Meikeljohn, G., 368, 372, 373, 376
Meleney, F. L., 194, 195
Meleney, H. E., 29, 30
Mengert, W. F., 370
Menke, W. J., 368, 369
Merritt, P. P., 163
Mertens, E., 293
Messerlin, A., 52
Metcalf, D., 181, 183
Meyer, K. F., 370, 374
Meyer, R., 318
Meyers, F. P., 117, 143, 146
Michaelis, M., 227
Mickle, F. L., 312, 320, 321
Middleton, J. T., 91
Milanick, V. E., 179
Miles, A. A., 309, 321, 323
Miles, E. M., 185, 186
Miller, A. K., 126
Miller, B. F., 176, 178, 179, 181, 185, 187
Miller, C. P., 214, 286
Miller, E. R., 311
Miller, G. L., 358
Miller, H. K., 123, 144
Miller, J. J., 66, 67, 68, 76
Miller, P. A., 132
Mills, K. C., 336, 357, 358
Mills, R. C., 117, 125, 146
Milner, H. W., 219
Milzer, A., 318
Mirick, G. S., 375, 376, 380
Mirimanoff, A., 169
Missiroli, A., 44, 45, 46, 47
Mitchell, H. K., 124, 125, 126
Mitchell, P. D., 147, 148, 237, 253
Mitra, M., 65, 67
Mitter, J. H., 66, 67
Moewus, F., 103
Molitor, H., 201, 203
Möller, F. F., 242
Molloy, E., 213, 375
Molloy, M., 324
Moltke, O., 325
Monod, J., 115
Moore, D. H., 272
Moore, F. M., 255
Moore, M. B., 67, 78
Moragues, V., 335, 347
Morgan, G. T., 258
Morgan, I. M., 298
Morgan, W. T. J., 276, 309, 310, 311
Moran, A. B., 26
Mordaunt, V. D., 187
Morin, J. E., 213
Morris, M. B., 163
Morton, H. E., 209, 319
Moseley, O., 121, 149
Moshkovsky, C. D., 374
Most, H., 245
Mousset, H., 125
Mowat, J. H., 118, 150
Moyer, A. J., 165, 209, 212
Mudd, S., 187, 264, 298, 303, 311, 319
Mudrow, L., 43, 45, 47, 48, 49
Mueller, J. H., 132
Mueller, M. G., 221
Muir, R. D., 199
Muller, H. J., 21, 38, 39
Müller, K. O., 79
Mulligan, H. W., 52
Muntz, J. A., 187
Murphy, F. D., 56
Murphy, H. C., 73, 78
Murray, E. S., 345, 346
Mustakas, G. C., 167
Muttermilch, S., 27
Myers, E. H., 5

N

Naghski, J., 225
Nagler, F. P. O., 357
Nakata, K., 88
Nassonov, D., 12
Natarajan, S., 222
Neal, J., 318
Needham, D. M., 253
Nelson, C. T., 314, 317
Nelson, R. B., 254
Neter, E., 186, 187, 309, 312, 313, 314, 315, 328
Neufeld, F., 175, 181, 185
Newman, E. V., 195
Newman, H. E., 185, 186
Newton, M., 63, 66, 67, 71, 72, 74
Nicol, W. D., 56
Nicolaisen, W., 74
Niederl, J. B., 174
Nielsen, N., 143
Nigg, C., 342, 371, 372, 373, 374
Nigrelli, F. F., 14
Nimmo-S[illegible] F. M., 126
Nisonger, L., [illegible]
Niven, C. F., Jr., 118, 146
Nitti, F., 125

Noble, E. R., 4, 6, 7
Nocito, V., 121, 148
Nolla, J. A. B., 87
Nono, A. M., 44
Norris, D. O., 95
Norris, L. C., 119
Northey, E. H., 118, 150, 237
Norval, I. P., 89, 90
Noyce, D. S., 214
Nucciotti, L., 53
Nungester, W. J., 182

O

Oakley, C. L., 133
Oberlé, G., 51
O'Connor, R. J., 27, 28, 36
O'Dell, B. L., 118
O'Donnell, R., 371
O'Kane, D. J., 121
Olcott, H. S., 197
Olitski, L., 310
Oleson, A. P., 210
Olivier, H. R., 196
Olson, B. H., 165, 166
Olson, W. J., 159
Olsson, R. C., 317, 318
Ondratschek, K., 103, 104, 111
Oneto, J. F., 219
Ordal, E. J., 176, 178
Ormsbee, R. A., 102, 243, 246
Ørskov, J., 325, 326
Orton, C. R., 68
Osborn, E. M., 223
Osler, A. G., 277
Osterberg, A. E., 211, 212
Owades, P., 144
Oxford, A. E. O., 193, 198, 200
Özek, Ö., 221

P

Packer, H., 56
Padnos, M., 14
Pagès, J., 310
Pan, S. C., 167
Pandalai, K. M., 224
Panse, T. B., 207
Pappenheimer, A. M., Jr., 265
Paraense, L., 47, 52
Parise, N., 53
Parker, R. C., 295
Parker, R. F., 372
Parker, R. R., 344
Parrish, M., 317
Partridge, S. M., 309, 310, 311
Pasteur, L., 277
Pearce, E., 213
Pearson, H. E., 358, 371
Peck, R. L., 201
Peck, S. M., 214
Peckham, G. T., Jr., 167
Pederson, K. O., 270
Pelczar, M. J., Jr., 143
Peluffo, C. A., 326
Peluffo, E., 326
Pénau, H., 216
Pennington, D., 123
Penniston, V., 184
Périault, R., 216
Perdigon, E., 116
Pereira, J. M., 51
Perlman, D., 166, 168
Perlman, E., 271, 309, 311, 318
Perlstein, D., 178, 179
Petermann, M. L., 276
Peters, R. A., 120, 253
Peterson, M. S., 123, 124
Peterson, O. L., 346, 379, 380
Peterson, W. H., 123, 124, 146, 159, 163, 165, 167, 168, 212
Petrie, G. F., 326
Petroff, S. A., 180
Pettijohn, O. G., 166
Petty, M. A., 62
Peturson, B., 62, 63, 65, 66, 67, 68
Pfankuch, E., 89
Pfiffner, J. J., 118
Philip, U., 103
Phillips, J. H. H., 91
Phillips, N. E., 7
Philpot, F. J., 214
Pickels, E. G., 264, 362
Piemeisel, F. J., 62, 70
Pijper, A., 310, 321
Pike, R. M., 325, 326
Pillemer, L., 132, 151, 267, 277
Pinkerton, H., 335, 347
Pinto, M. R., 51
Pirie, N. W., 88, 263, 269, 273
Pisani, T. M., 298, 302
Pitt, R. M., 311, 322
Plotz, H., 335, 338, 341, 347
Pollock, A. V., 214
Polson, A., 293
Pope, G. C., 295
Popham, W. L., 80
Popp, W., 72
Porter, J. R., 117, 143, 146, 264
Porter, R. H., 91
Porter, R. J., 43, 45, 46, 49, 56
Porter, R. W., 166
Portnoy, B., 318, 319
Poth, E. J., 254
Pottinger, D., 245
Pound, G. S., 95
Powney, J., 181, 183
Praderi, J. A., 326
Pratt, R., 219
Preis, H., 278, 285
Pressman, R., 179, 180
Price, A. H., 328
Price, C. W., 213
Price, W. C., 86, 91, 95
Pulaski, E. J., 326
Pullen, R. L., 326
Pullman, T. N., 56, 57
Purchase, H. S., 45
Purdy, H. A., 86
Putnam, F. W., 132, 267

Q

Quastel, J. H., 116, 143
Quattrin, N., 53
Quisno, R. A., 176, 178, 179, 180, 181, 182

R

Rachele, J. R., 213
Rada, G., *see* Garcia-Rada, G.
Raffaele, G., 44, 45, 50
Raffel, S., 36
Raffy, A., 169
Rahn, O., 174, 175, 176, 177, 178, 181, 184, 185
Rainio, A. J., 91
Raistrick, H., 207
Rake, G., 201, 210, 360, 370, 372, 373, 374
Ramon, G., 196, 214, 295, 296
Ramon, J., 214
Ramon Guerra, A., 326
Randall, C. C., 314, 315
Randall, W. A., 213
Randles, C. I., 175
Rao, R. R., 222, 224
Rao, S. S., 222
Raper, K. B., 207, 209, 216
Rapoport, S., 313
Rapport, M. M., 247

Ratner, S., 150
Rawlins, A. L., 174, 179
Rawlins, T. E., 92
Ray, H. N., 7
Reagan, R. L., 341
Reames, H. R., 124
Reddisch, G. F., 180
Reed, G. M., 61
Reed, G. S., 179
Reed, R. K., 194
Reek, D. L., 167
Reichenow, E., 47, 49, 54
Reichert, I., 78
Reichle, P. A., 327
Reilly, H. C., 166, 201, 203, 207
Reimann, H. A., 328, 375
Rein, C. R., 277
Reinhardt, K., 103, 104
Reinking, O. A., 76
Reitler, R., 198
Remlinger, P., 196
Reynals, F., *see* Duran-Reynals, F.
Reynolds, B. D., 7
Reynolds, D. M., 201
Rhodes, J. C., 180
Ribeiro, V. R. L., 317
Rich, A. R., 291
Richards, B. L., 95
Richardson, A. P., 210, 212, 240
Richou, G., 196
Richou, R., 214, 295, 296
Rickard, E. R., 354, 359, 368, 369
Rickes, E. L., 118
Rights, F. L., 341
Riley, E., 246
Rischkov, V. L., 88
Rist, N., 304, 311
Ritz, H., 27
Rivers, R. P., 238
Rivers, T. M., 299
Robb, J. V. M., 258
Robbins, F. C., 342
Robbins, M., 118
Robbins, W. J., 218
Robb-Smith, A. H. T., 133
Roberts, E. C., 125, 199
Roberts, F. M., 67
Roberts, M. H., 174, 175, 176
Robertson, H. F., 94
Robertson, M., 37
Robinson, D. T., 254
Robinson, F. A., 119
Robinson, H. J., 203
Robinson, L. K., 272
Robinson, R., 207, 238
Roblin, R. O., Jr., 115, 144, 246, 250, 251
Rockland, L. B., 146
Rodenhiser, H. A., 66, 73, 74, 79
Rodney, G., 134
Rodriguez, J., 63
Roekle, K., 317
Roepke, R. R., 124, 125, 126, 127
Roessler, W. G., 117, 123, 132, 146
Rogers, H. J., 133, 134
Rogers, S. C., 161, 162
Rolt, R., 223
Romero, S., 295
Rose, F. L., 56, 248, 249, 250
Rose, H. M., 213, 251, 346, 375
Rosenberg, A. J., 116, 123
Rosenberg, J. L., 270
Rosenberg, L. E., 14
Rosenthal, L., 217
Ross, A. O. F., 254
Ross, O. A., 175, 176, 268
Ross, R., 43
Rothen, A., 264
Rottier, P.-B., 107
Roulet, F., 152
Rous, P., 291
Rowlett, R. J., 249
Rubbo, S. D., 240, 250
Rubenkoenig, H. L., 174
Rubenstein, A. D., 324
Rudert, J., 170
Ruhe, D. S., 55
Ruoff, P. M., 207
Russell, P. F., 44
Rustigan, R., 309, 311, 342
Rydon, H. N., 150

S

Sachs, A., 312, 314
Sadasivan, T. S., 92
Saeman, J. F., 162, 164
Saenz, A., 295
Sagin, J. F., 180
St. John, E., 371
Saint-Rat, L. de, 196
Salaman, R. N., 92, 94
Salisbury, J. M., 249
Salk, J. E., 351, 354, 358, 359, 367, 368, 369
Salle, A. J., 151, 194
Salvin, S. B., 206
Samarina, O., 121
Samper, B. A., 380
Sanders, A. G., 203, 217
Sanders, E. P., 8, 10
Sanger, F., 151
Saphra, I., 311, 320, 321, 322, 323, 324, 325, 326
Sarber, R. W., 187
Sarett, H. P., 130, 143
Sauberlich, H. E., 129
Saunders, F., 124
Scadding, J. G., 256
Scales, F. M., 183, 187
Schaal, L. A., 66, 79
Schafer, E. G., 79
Schafer, W. L., 319
Schaffer, A. A., 3
Schaffer, J. M., 174
Schain, P., 180
Schantz, E. J., 132, 267
Schatz, A., 166, 201, 203, 207, 217
Schaudinn, F., 44
Schenkein, E. L., 302
Scherp, H. W., 271
Schiemann, O., 175, 181, 185
Schlenk, F., 121
Schlosser, M. E., 130
Schmelkes, F. X., 251
Schmidt, L. H., 246, 250
Schmidt, W. H., 210, 212
Schmitt, F. O., 8, 11
Schneider, H. A., 325
Schneider, J., 45
Schoene, L., 160
Schoental, R., 198
Schönhöfer, F., 249
Schopfer, W. H., 102, 124, 170
Schroeder, E. F., 245
Schuhardt, V. T., 29, 30
Schulemann, W., 47, 48
Schultz, E. S., 92
Schultz, M. P., 295
Schütz, O., 175, 181, 185
Schütze, H., 276
Schwabacher, H., 133
Schwartz, P., 185
Schweigert, B. S., 117, 129, 146
Schwentker, F. F., 299
Schwetz, J., 50
Scott, E. G., 346
Scott, E. M., 358
Scott, M. L., 119
Scott, T., 378
Seddon, H. J., 185
Sedwitz, S. H., 185, 186
Seegal, B. C., 222
Seeger, D. R., 118, 150

Seguela, J., 13
Selbie, F. R., 239
Seligmann, E., 311, 320, 321, 322, 323, 324, 325, 326
Selman, I. W., 91
Semb, J., 118, 150
Senear, A. E., 247
Senkus, M., 167
Sergent, Edm., 44, 56
Sergent, Et., 44, 56
Sevag, M. G., 122, 123, 124, 127, 129, 175, 176, 240
Severens, J. M., 40
Severson, G. M., 160
Shaffer, M. F., 370
Shankman, S., 117, 146
Shannon, J. A., 244, 245
Shapiro, R. L., 183
Sharp, D. G., 132, 267, 275, 354, 365
Sharp, R. G., 12
Shaughnessy, H. J., 317, 318
Shaw, D. R., 375
Shay, J. R., 67, 70
Shear, M. J., 337, 342
Shearer, N. H., 249
Shedlovsky, T., 269, 286
Sheffield, F. M. L., 92
Sheiness, P., 123
Shelburne, M., 240
Shelton, R. S., 174
Shepard, C. C., 264, 336, 337, 338, 339, 340, 342
Shephard, R. G., 246
Sherbakoff, C. D., 76
Sherman, J. M., 118, 146
Sherrard, E. C., 161
Sherwood, M. B., 181
Shibuya, M., 200
Shive, W., 125, 128, 129, 130, 149
Shope, R. E., 352, 353
Short, R. B., 3
Shute, P. G., 56
Sia, R., 21
Sicault, G., 52
Sickels, J. P., 118, 150
Silberstein, J. K., 3
Silcox, H., 166
Siler, J. F., 311, 327
Silverman, M., 251
Simmonds, S., 144
Simms, B. T., 6
Simonson, D. G., 255
Sinton, J. A., 56, 245
Sjolander, N., 166
Skeggs, H. R., 145
Slafkovsky, H., 311
Slobodkin, N. H., 118
Smadel, J. E., 286, 335, 341, 342, 347, 370
Small, M. H., 127
Smith, A. B., 311, 324
Smith, A. H. T., *see* Robb-Smith, A. H. T.
Smith, E., 276
Smith, F. W., Jr., 116, 264
Smith, H. M., 324
Smith, J. D., 249
Smith, J. H. C., 219
Smith, J. M., Jr., 118, 150
Smith, K. M., 91, 92
Smith, N. R., 195
Smith, R. E., 68
Smith, R. H., *see* Nimmo-Smith, R. H.
Smith, S., 245
Smolens, J., 298, 303, 311, 318
Smyth, J. D., 9, 12
Snell, E. E., 115, 116, 117, 118, 121, 124, 125, 126, 128, 129, 143, 144, 150, 242
Snell, J. F., 163
Snyder, J. C., 335, 345, 346
Snyder, L. H., 38
Snyder, M., 338
Snyder, M. J., 342
Snyder, W. C., 66, 76
Soltys, M. A., 205
Sommer, H. E., 302
Sonneborn, T. M., 14
Sordelli, A., 264
Sotier, A. L., 185
Southam, C. M., 224
Sparrow, H., 334
Spaulding, E. H., 182, 226, 252
Spencer, E. L., 90
Spies, K., 47, 48
Spindle, F., 315
Spizizen, J., 314, 317
Spoehr, H. A., 219
Spooner, E. T. C., 92
Sprague, V., 7
Sprenger, R. D., 207
Srb, A. M., 146
Stabler, R. M., 4
Stacey, M., 269
Stahly, G. L., 228
Stakman, E. C., 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 74, 77, 78, 80
Stamberg, O. E., 163
Stamps, P., 334, 341
Stanley, N. F., 205, 207, 208
Stanley, W. M., 88, 89, 187, 264, 268
Stansly, P. G., 130
Stark, W. H., 159, 161
Starr, M. P., 117
Staub, A. M., 278, 282
Stauffer, J. F., 210
Steabben, D., 317
Stearns, B., 372, 374
Stefaniak, J. J., 165
Steigman, A. J., 344
Steinhaus, E. A., 323
Stephens, D. E., 79
Stern, E. R., 298
Stevens, D. A., 187
Stevens, H., 343
Stevenson, F. J., 63, 92
Stitt, H. L., 187
Stocken, L. A., 253
Stock, C., 253
Stokes, J., 375
Stokes, J., Jr., 301
Stokes, J. L., 118, 146, 149, 151
Stokinger, H. E., 271
Stokstad, E. L. R., 118, 150
Stone, C. M., 309, 311
Stone, J. D., 250, 357, 369
Stone, W. S., 312
Storey, H. H., 93
Storey, I. F., 91
Straib, W., 67
Strain, H. H., 219
Strait, L. A., 219
Strandskov, F. B., 251
Stratman-Thomas, W. K., 44
Streightoff, F., 124
Strelitz, F., 215
Strohmaier, A. J., 167
Strong, F. M., 143
Stuart, B. M., 326
Stuart, C. A., 309, 311
Stuart-Harris, C. H., 344, 367
Stubbe, H., 89
Stump, A. B., 4
Stumpf, P. K., 116, 152, 264
Subbarow, Y., 118, 150
Sullivan, E. R., 358
Sullivan, M., 228
Sulzberger, M. B., 306
Summer, E. M., 94
Summers, F. M., 1
Surgalla, M. J., 133
Surraco, N. L., 326

Svedberg, T., 270
Svensson, H., 264
Sweeney, C. J., 327
Sweet, J. E., 325
Sweet, L. A., 174
Swellengrebel, N. H., 44
Swift, H. F., 295
Swingle, K. F., 124
Synge, R. L. M., 151, 197
Syverton, J. T., 311, 324
Szongott, H., 278
Szucs, J., 168

T

Tabone, J., 125
Taggart, J. V., 244
Takahashi, W. N., 92, 205
Takimoto, S., 88
Talbot, J. C., 376
Taliaferro, W. H., 20, 27, 35, 39, 40, 52
Tang, P. S., 224
Tanner, F. W., 40
Tanner, F. W., Jr., 169
Tarnanen, J., 143
Tarsitano, A., 51
Tartar, V., 13
Tate, P., 45
Tatlock, H., 375
Tatum, E. L., 121, 123, 124, 127, 128, 129, 130, 145, 146, 153
Taylor, A. R., 275, 354, 365
Taylor, C. V., 12
Taylor, D. B., 264
Taylor, E. M., 132
Taylor, E. R., 122
Taylor, E. S., 147, 148, 226
Taylor, M., 3, 4
Taylor, M. P., 184
Taylor, T. J., 323
Tepper, J., 311, 318
Tervet, T. W., 77
Tesdal, M., 25
Thatcher, T. S., 227
Thayer, S. A., 199
Thaysen, A. C., 163
Theodore, J. H., 29, 30, 31, 34, 35, 40
Theorell, H., 199
Thibault, P., 311
Thigpen, M. P., 354, 368, 369
Thom, C., 208
Thomas, L., 375, 376, 380
Thomas, W. K., *see* Stratman-Thomas, W. K.
Thomen, L. F., 319
Thompson, K., 245
Thompson, K. J., 297, 298, 302, 303
Thompson, M., 319
Thompson, M. V., 75
Thompson, P. A., 194, 196
Thompson, P. E., 45
Thompson, R., 200
Thompson, R. H. S., 253
Thompson, W. S., 256
Thorne, C. B., 159
Thung, T. H., 86, 88
Thygeson, P., 370
Tice, L. F., 179
Tierney, N. A., 346
Tilford, C. H., 174
Tilley, F. W., 174
Tims, E. C., 94
Tobie, W. C., 205, 207
Todd, C. W., 346
Tomcsik, J., 278
Tomlinson, H. M. R., 121
Topley, W. W. C., 292
Topping, N. H., 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346
Totter, J. R., 118, 123
Tousley, R. D., 161
Townshend, R. H., 248
Trager, W., 247
Treffers, H. P., 268, 272, 276, 286
Tucker, C. M., 75
Turcotte, H., 213
Turner, G., 181, 183
Turner, J. C., 379, 380
Turner, J. P., 12, 13
Turton, E. C., 254
Tyler, A., 277
Tyler, L. J., 62, 63, 68, 70

U

Umbreit, W. W., 120, 121, 128, 145, 148, 150
Unat, E. K., 311
Underkofler, L. A., 160, 162, 166
Utter, M. F., 116
Uzman, L., 151

V

Vaheeduddin, S., 70, 73
Valko, E. I., 174, 175, 176, 177, 178, 179, 181
Valleau, W. D., 87, 89, 90, 94
Vallée, M., 196
Vallega, J., 65, 80
Van Campen, M. G., 174
Vance, D. H., 378
Van de Sand, V. F., 199
van den Ende, M., 336, 344
Van der Scheer, J., 338, 344
Van Dolah, R. W., 226
Van Eseltine, W., 181, 183
van Herick, W., 376
van Heyningen, W. E., 133
Van Lanen, J. M., 169
van Niel, C. B., 115, 119, 241, 242
Vanterpool, T. C., 93
Vasudeva, R. S., 92
Vaughan, J. R., Jr., 144
Veldee, M. V., 211
Veldstra, H., 126, 127
Vendrely, R., 131
Venkataraman, K., 207
Ventkataraman, P. R., 222
Verney, L., 43
Vignolo, R. L., 183, 184
Villela, G. G., 194
Villeneuve-Brachon, S., 12, 13
Virtanen, A. I., 143
Visger, E. E., 187
Voegtlin, C., 251
Vojnovich, C., 169
von Loesecke, H. W., 169
Vorhees, R. K., 74
Vovk, A. M., 88

W

Wade, N. J., 199
Waddington, H., 295
Waelsch, H., 123, 144
Wagner, J. C., 372, 373
Waisbren, B. A., 133
Waksman, S. A., 166, 168, 193, 201, 203, 207, 217, 226, 229
Waletzky, E., 246, 247
Walker, J. C., 91, 92, 95, 222
Walker, N., 129, 153
Wallace, J. M., 93
Wallace, U., 295
Waller, C. W., 118, 150, 223
Walls, L. P., 258
Walmesley, R. A., 167
Walter, A. W., 298, 302
Walter, C. W., 185, 186

Walter, J. M., 66, 69
Walter, W. G., 183
Walti, A., 201
Ward, C. B., 206
Ward, G. E., 166, 169, 212
Ward, W. E., 327
Warner, K. L., 2
Warner, W. F., 252
Warrack, G. H., 133
Warren, A. J., 45
Warren, J., 302
Wartman, W. B., 267
Washburn, M. R., 118
Wassén, A., 24
Wassermann, M., 311, 320, 321, 322, 323, 324, 325 326
Waterhouse, G. M., 75
Waterhouse, W. L., 62, 67, 71
Waters, J. W., 119
Waters, L. L., 253
Watson, D. W., 277, 278, 279, 280, 284, 285, 336, 339
Watson, R. B., 56
Watt, J., 256, 312, 313, 314, 315, 326
Webster, L. T., 325
Weidling, S., 200
Weigl, R., 343
Weihl, C., 313
Weil, A. J., 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 322, 326, 327, 328
Weil, E., 277
Weil, M. L., 275
Weir, J. M., 375
Weiser, J., 7
Weissman, N., 277, 278, 284, 285
Weizmann, C., 167
Welch, A. D., 241
Welch, H., 213
Welcke, M., 134
Weld, J. T., 224
Wells, I. C., 199
Welsch, M., 201
Wenrich, D. H., 2, 4, 10
Wenyon, C. M., 54
Werkman, C. H., 116, 167, 227
Wertman, K., 338, 341
Weschenfelder, R., 7
West, D. E., 320, 321
West, P. M., 124
Westphal, O., 174
Westwater, J. O., 292, 304
Wheeler, K. M., 309, 311, 312, 314, 315, 320, 321
Whiffen, A. J., 203
Whipple, O. C., 91, 92
Whitaker, T. W., 91
White, A., 275, 293
White, B. V., 319
White, C. S., 185, 186
White, H. J., 242, 246
White, N. H., 92
White, P. B., 26
Whitehill, A. R., 182
Whitmore, F. C., 165
Whorton, C. M., 56, 57
Wichterman, R., 14
Wieder, S., 310, 322, 326, 327
Wieland, T., 242
Wiener, M., 363, 364
Wilber, C. G., 2
Wilder, V. M., 185
Wilkins, W. H., 219
Wilkinson, R. S., 185, 186
Williams, A. E., 169
Williams, J. W., 270, 276
Williams, R., 185, 186
Williams, R. D., 126
Williams, R. E. O., 133
Williams, R. J., 117
Williamson, J., 252
Willkie, H. F., 159
Wilson, C. T., 63
Wilson, G. S., 309, 321, 323
Wilson, J. W., 249
Wilson, P. W., 124, 143
Wiltshire, S. P., 95
Wineman, M. A., 184
Winkler, K. C., 126, 127
Wintersteiner, O., 201, 203, 206, 211, 228
Wintrobe, M. M., 291
Winzler, R. J., 123, 142
Wiselogle, F. Y., 244
Wiseman, R. W., 372, 373
Wishart, F. O., 339
Wittler, R., 132, 151, 267
Wolarsky, W., 313
Wolf, A., 298
Wolfe, D. M., 338
Wolk, J., 180
Wollenweber, K. W., 76
Wood, H. G., 115
Wood, S., 121, 149
Wood, W. A., 121, 128, 145
Wood, W. B., 203
Woodruff, E. H., 174
Woodruff, H. B., 195, 204
Woodruff, L. L., 13, 14
Woods, D. D., 124, 126, 150, 153, 240
Woolf, B., 143
Woolley, D. W., 115, 247
Woolman, H. M., 79
Work, T. S., 246
Worley, L. G., 12
Wormus, E. R., 317
Wright, B., 127
Wright, E. C., *see* Barton-Wright, E. C.
Wright, E. S., 177, 180, 181
Wright, L. D., 145
Wright, L. T., 185, 186
Wyckoff, R. W. G., 88, 337, 344
Wyss, A. P., 174
Wyss, O., 251

Y

Yarwood, E. A., 7
Yaw, K., 179
Yen, C. H., 327
Yeomans, A., 345
Yermolieva, Z. V., 214
Yorke, W., 44, 56
Young, F. W., 187
Young, V. M., 326, 328
Younkin, S. G., 95

Z

Zahl, P. A., 310
Zamecnik, P. C., 273
Zarafonetis, C. J. D., 345, 346
Zeissler, J., 186
Zelle, M. R., 325
Zeller, E. A., 152
Zeller, S. M., 95
Zerbino, V., 326
Ziegler, J. E., Jr., 375, 376, 380
Zimmerman, A., 309, 311
Zinsser, H., 334
Zittle, C. A., 264
ZoBell, C. E., 115, 116
Zundel, G. L., 73

SUBJECT INDEX

A

Active Immunization, see Immunization, active
Allergy, drug, and anaphylaxis, inhibition of, by feeding sensitizing agent, 305, 306
Ammonia, assimilation of by bacteria, *see* Nitrogen metabolism of bacteria
Ammonium compounds, quaternary, *see* Disinfectants
Anthrax, 277–86, *see also* Immunization *and* Antigens, bacterial
  inflammatory factor in, 284, 285
    chemical nature of, 285
  mechanism of death in, 279
  natural resistance against, 278, 279, 284
Antibodies
  formation of, 291–95
    by lymph node, 292
    role of lymphocytes in, 275, 292–94
    by phagocytic tissue cells, 291
    by plasma cells, 275, 294
    by spleen and lymphocytes, 291, 292
  nature of, 275–77
  origin, properties and, 275–77
Antibiotics, 193–236
  action, mechanism of, 225–29
  definition of, 193, 194
  from actinomycetes, 201–4
  from algae, lichens and, 219, 220
  from bacteria, 194–200
  from basidiomycetes, 218, 219
  from molds, 205, 217
  from phycomycetes, 217, 218
  from higher plants, 221–25
  from yeasts, 204, 205
Antibiotics, specific
  actinomyces lysozyme, 201
  actinomycetin, activity of, 201
  actinomycin, activity of, 201
  aspergillic acid, chemical nature, activity of, 206
  aspergillin, chemical nature of, 206
  bacillin, action of, 195
  bacitracin, nature of, 194, 195
  chaetomin, action of, 206, 207
  claviformin, activity of, 208
  clitocybin, activity of, 219
  colistatin, action of, 198
  crepin, nature and activity of, 222, 223
  dicoumarol, nature and activity of, 224
  diplococcin, chemical nature and action of, 200
  diploicin, nature and activity of, 219, 220
Antibiotics (*cont.*)
  endosubtilysin, nature of, 196
  eumycin, activity of, 195
  fumigacin, action of, 208
  gladiolic acid, action of, 215
  gliotoxin, chemical nature of, 208
  glutinosin, nature of, 216
  gramicidin, chemical nature of, 196, 197
  grisein, chemical nature of, 203
  α-hydroxyphenazine, nature of, 199
  iodinin, chemical nature and action of, 200
  javanicin, chemical structure of, 215
  kojic acid, activity and chemical structure of, 209
  licheniformin, nature and activity of, 196
  litmocidin, action of, 204
  mycetin, properties of, 201
  mycocidin, activity of, 217
  mycoin c, nature of, 216
  nocardine, action of, 204
  nordihydroguaiaretic acid, activity of, 223
  nor-mycophenolic acid, chemical structure of, 217
  penicillic acid, chemical nature of, 209
  penicillin, activities of, 211, 212, 213
    chemical structure of, 210, 211
    commercial production of, 165, 166, 209, 210
    types of, 211
  penicillin-crustosin, clinical effect of, 214
  phthiocol, action of, 199
  polyporin, nature and activity of, 199
  proactinomycin, use of and characteristics of, 203, 204
  prodigiosin, action of, 199
  protoanemonin, chemical structure of and synthesis of, 222, 223
  pterigospermin, activity and source of, 224, 225
  puchiin, source of and action of, 224
  pyocaine, chemical nature of, 199
  pyolipic acid, chemical nature of, 199
  quercetin, chemical structure and activity of, 225
  rocellic acid, chemical nature of, 219
  streptin, action of, 204
  streptomycin,
    chemical nature of, 202
    production of, 165, 166
  streptothricin, nature and activity of, 201
  subtilin, nature of, 194
  subtiline, action of, 196

Antibiotics (*cont.*)
subtilysin, action of, 196
tomatin, source and activity of, 224
tyrothricin, chemical nature of, 196, 197
ustin, chemical nature of, 214
violacein, action of, 199
viridin, nature and chemical structure of, 216
Antigenic variation, *see* Variation, antigenic
Antigens, bacterial
anthrax
nature of, 277–86
nutrient factors for production of, 283
destruction of, by enzymes, 272, 273
polysaccharides, homogeneity of, 269–72
production of, in synthetic media, 264, 265
streptococcal, nature of, 272, 273
tagged elements in the study of, 268, 269
Antigens, blood group, 269–72
hog mucin polysaccharides and, 270, 271
Antigens, rickettsial
preparation of, 337, 338
Antigens, viral, tagged elements in study of, 268, 269

B

Bacteria, antigenic variation in, 19–42; *see also* Variation, antigenic
Bacteria, growth factors for, *see* Growth Factors, of bacteria
Bacteria, metabolism of, 115–40; *see also*, Metabolism, bacterial
Bacteria, nitrogen metabolism of, 141–58; *see also* Nitrogen Metabolism, of bacteria
Bacteria, photosynthetic, growth factors for, 112
Bacterial antigens, *see* Antigens, bacterial
Bactericide
by enzyme inactivation, 176
by penetration of cell membrane, 176
by protein denaturation, 177
by action of quaternary ammonium compounds, 176–78
Bacteriostasis
definition of, 174
mechanism of, 175
by quarternary ammonium compounds, 174–76
relationship to cell synthesis, 175
relationship to enzyme inhibition, 175
Biosynthesis, by bacteria, 127, 129, 130
Borellia, antigenic variations of, *see* Variations, antigenic, of Borellia
Butyl alcohol, industrial production of, 167, 168
Butylene glycol, industrial production of, 166, 167

C

Chemotherapy
demography and, 256–58
and drug antagonism
pH, influence on, 250, 251
-SH group, influence on, 251, 252
host-parasite-drug complex in, 253–56
in malaria, 243–49
resonance of compounds, 249, 250
recent trends of, 239–53
vs. respiratory viruses, 372–74
in rickettsial infection, 345–47
scope of, 237–39
sulfonamide activity, 254–58
Chemotherapeutic agents, 237–62
mode of action of, 239–42
p-aminobenzoic acid and sulfonamides, 123–27
Citric acid, industrial production of, 168, 169
Complement, nature of, 277

D

Disinfectants, quaternary ammonium compounds, 173–92
action of on bacteria, 176–78
applications of, 182–88
in general sanitation, 182, 183
in human medicine, 186
in surgery, 185, 186
in veterinary medicine, 187, 188
in water supply treatment, 184, 185
bactericidal efficiency, factors influencing, appraisal of, 178–82
bacteriostatic action of, 174–76
characteristics of, 173
constitution of, 173, 174
fundamental studies of, 173–78
toxicity of, 174

E

Enteric infection
bacteriological and immunological considerations of, 309–12
by Enterobacteriaceae, miscellaneous, 327, 338
medical and epidemiological aspects of, 309–32
by *Salmonella*
clinical aspects of, 324–26
and host adaption, 324

Enteric infection (*cont.*)
immune prophylaxis of, 327
incidence of types of, 321
serological differentiation of, 319–22
therapy of, 326, 327
S. typhi, bacteriophage typing of, 322, 323
typing, significance of, 323, 324
Vi-antigen of, 322
by *Shigellae*
clinical aspects of, 315–17
epidemiological aspects of, 312–15
incidence of species, 314
incidence of types, 316, 317
prevention of, 317, 318
species of, 312
therapy of, 319
Enzymes, bacterial, preparation of, 116
Ethyl alcohol, industrial production of, 159–62
from grains, 159–61
from sulfite waste liquor, 162
from wood products, 161, 162

F

Fermentations, industrial, 159–72; *see* Specific products of
Fungi, pathogenic, *see* Variations, of fungi, phytopathogenic

G

Growth, bacterial
of anthrax in synthetic medium, 117
essential amino acids for, 117
stimulation by acetate, 117
and sulfur requirements for, 117
and inorganic constituents of medium, 116, 117
Growth factors, for bacteria, general, 117–27
metabolic function, 119, 120, 126
metabolism of, 119, 120
and photosynthetic life, 112
and protozoa, 103
Growth factors, for bacteria, specific *p*-aminobenzoic acid, 123–27
B_6 group, 120, 121
biotin, 123
folic acid group, 118, 119
glutamine, 122, 123
hematin derivatives as, 102, 103
m-inositol, 123
pantothenic acid, 121, 122
protoporphyrin, 123
strepogenin, 123
Growth factors, for protozoa, general, 101–14
and bacteria, 103
Growth factors (*cont.*)
concentration and growth of, 107
concentration of nitrogen source, 107
iron requirements of, 105–7
and photosynthetic bacteria, 112
species requirements of, 107
Growth factors, for protozoa, specific, 107–14
p-aminobenzoic acid as, 102
hematin derivatives as, 102
thiamine as, 103, 105–11
influence of iron on, 105
pyrimidine, 105, 107, 110–12
pyrimidine derivatives, 109, 110
thiazole, 105, 107, 110–12
thiazole derivatives, 108

I

Immunization, active, 291–308
adjuvants in, 295–305
paraffin oil as, 295, 296
living tubercle bacilli as, 296
various substances as, 295, 296
water-oil emulsions as, 296–305
see also Water-oil emulsions, in active immunization
against anthrax, 277–86
capsular material, role of, 278
edema fluid, role of, 281
serological tests, absence of, 285, 286
against malaria, 302, 303
reviews on, 291
against viruses, 301, 302
Immunochemistry, 263–90
development of, 263
methods of, 263, 264
Industrial fermentations, *see* Fermentations, industrial

L

Lactic acid, industrial production of, 167
Lactobacilli, antigenic variations of, *see* Variations, antigenic of lactobacilli
Life Cycle, of malarial parasites, 43–60
erythrocytic stages of, reviews on, 43, 44
exoerythrocytic schizogony, reviews on, 43
pre-erythrocytic stages of, 46–50
in avian hosts, 46–50
evidence for from chemotherapy, 55–57
hypothesis of, 57, 58
in human hosts, 50, 51–53
reviews on, 43–45
in simian hosts, 50, 53
terminology of, 45, 46

M

Malaria, chemotherapy in, 55–57, 243–49
chloroquine, chemical structure of, 245
paludrine, chemical structure and activity of, 248, 249
pamaquine, chemical nature of, 245, 246
pentaquine, use of, 245, 246
quinacrine, chemical structure of, 244, 245
Malaria, pathology of, 52–54
Malaria, immunization against, and adjuvants, *see* Immunization, active
Malarial parasites, *see* Life Cycle, malarial parasites
Metabolism, bacterial, 115–40
Metabolism, nitrogen, of bacteria, *see* Nitrogen metabolism of bacteria
Metabolites, essential, biosynthesis of, 127, 129, 130
Morphology, of protozoa, 1, 2, 5, 6, 7–10, 11, 12

N

Nitrogen metabolism, of bacteria, 141–58
amino acids in,
assimilation of, 146
concentration gradient of, 147
synthesis of, 143–46
transamination of, 148, 149
assimilation of NH_3, 141–43
confirmation with N_{15}, 143
dependent on biotin content, 142
protein degradation, 152–55
amino acid degradation, 152, 153
proteolysis, 152
protein synthesis, 142–52
analysis by micromethods, 151, 152
deamination and decarboxylation, 153–55
Nitrogen metabolism, of fungi, biochemical mutants of, 145
Nitrogen metabolism, of yeast, ammonia assimilation of, 142
Nutrition, bacterial, *see* Growth, bacterial *and* Growth factors, bacterial

P

Paramecium, antigenic variations of, *see* Variations, antigenic, of paramecium
Parasites, malarial, *see* Life cycle, malarial parasites
Pneumococcus, antigenic variation of, *see* Variation, antigenic
Protein, synthesis of in bacteria, *see* Nitrogen Metabolism, of bacteria
Protozoa,
antigenic variation in, 19–42; *see also*, Variations, antigenic
definition of, 101
genetics of, 103, 104
growth factors for, *see* Growth factors, of protozoa
indispensable amino acids for growth of, 103
morphology and cytology of, 1–18
Ciliophora, 11–15
Mastigophora, 7–11
Sarcodina, 1–5
Sporozoa, 5–7
malarial parasite, *see* Life Cycle, of malarial parasite
nutrition of, reviews on, 102
synthetic medium for growth of, 103
trophic requirements of, 101, 102, 110
Pyrogens, bacterial, 134

Q

Quarternary ammonium compounds, *see* Disinfectants

R

Reproduction
of protozoa, 2–5, 6, 7, 10, 11, 12–15, 103, 104
Respiratory Viruses, *see* Viruses, respiratory
Riboflavin, industrial production of, 169, 170
Rickettsiae, 333–50
antigens, preparation of, 337, 338
complement fixation by, 335, 337, 338
cultivation of, 333, 334
immunization against, 342–44
evaluation of, 344–47
preparation of vaccines, 342, 343
see also, Water-oil emulsions
immunological relationships among, 338
Q fever, 341, 342
tsutsugamushi, 341
typhus-spotted fever group, 338–41
infections, treatment of, 344–47
by *p*-aminobenzoic acid, 345, 346
by antibiotics, 347
by immune serum, 344, 345
neutralization tests against, 336, 337
toxic effect, neutralization of, 336

S

Salmonella, antigenic variations of, *see* Variations, antigenic, of Salmonella

T

Toxicity and virulence, of bacteria, factors associated with, 131–34
  hyaluronidase, 131–34
Toxins, bacterial
  botulinus, nature of, 132
    properties of, 266, 267
  diphtheria, as component of respiratory enzyme, 266
  enzymic nature of, 133, 273
  purification and crystallization of, 131–33
  relationship to iron in culture media, 265
  Shiga exoneurotoxin, 267, 268
  tetanus, nature of, 132
    properties of, 267
Toxins, reduction of systemic effect of, 303
Trypanosomes, antigenic variation of, *see* Variation, antigenic, of trypanosomes
Tryptophane, biosynthesis of, 128, 129

V

Variations, antigenic, of *Borellia*, 28–31
  in phase relationships, 29, 30
  in relapse phenomenon, 28
  stability of, 34, 35
  and strains of, 29
Variations, antigenic, general, 19–40
  extent of, 20
  nature of, 37–40
  stability of, 19, 32–37
Variations, antigenic, of lactobacilli, 33, 34
Variations, antigenic, of paramecium, 31, 32
  stability of, 36
Variations, antigenic, of pneumococcus, 20–23
  control of, 38, 39
  R→S, 21–23
  type transformation, 21
Variations, antigenic, of *salmonella*, 23–26
  degree of stability of, 33
  in diphasic strains, 24
  by loss, 26
  in monophasic strains, 24
  mutations of, 37, 38
  phase variations of, 24
  phase diagram, 25
  in phylogenetic development of species, 25, 26
Variations, antigenic, of trypanosomes, 27, 28
  and antibody resistance of, 39, 40
  diagram of, 39
Variations (*cont.*)
  and drug treatment, 27
  in infection, 27
  in relapse broods, 27, 28
  stability of, 35, 36
Variations, of fungi, phytopathogenic, 61–84
  biotypes
    discussion of, 61
    isolation and maintenance of, 62
    evidence for in nature, 74
  heterocaryosis of, 68, 69
  hybridization of, 69–74
    between biotypes in a species, 69, 70
    between genera, 73, 74
    between species, 72, 73
    between varieties, 70–72
  influence of chemical agents on, 63, 64
  modifications, semi-permanent, 63
  mutations of, 65–68
    color, 66
    cultural characters, 65, 66
    environmental influence on, 67, 68
    morphologic characters, 66
    pathogenicity, 67
  phenotypes and genotypes, 62, 63
  practical importance of, 75–81
    in development of varieties, 77, 80
    in epidemiology, 80, 81
    in quarantines, 80
    in taxonomy, 75–77
Variations, in viruses, phytopathogenic, 85–100
  comparison with genes, 96
  extent of, 95
  mutations, survey of, 86–95
  rate of, 95–97
  relationship of, 85, 86
Viruses, antigens of, *see* Antigens, viral
Viruses, atypical pneumonia, 374–81
  and streptococcal agglutinins, 381
  and cold agglutinins, 379, 380
  antibodies against, 379–81
  characterization of, 374–81
Viruses
  bacteriophage, *E. coli*. T_2, nature of, 275
  comparison with genes, 96
  immunization against, and adjuvants, *see* Immunization, active
  influenza, 351–70
    chemical analyses of, 366, 367
    complement-fixing antigen of, 360–64
  hemagglutination by, 354
    and comparison with other viruses, 356–58
    and elution of, 354
    and infectivity, 358
    and prevention by lecithinase, 356

Viruses (*cont.*)
in immunochemistry, 273–75
liberation of, 353
normal tissue component of, 364–67
reservoir of, 351–54
serological variation of, 367–70
serological variation, source of, 273–75
strain study center for, 367
toxic factors of, 359
Viruses, Newcastle disease in fowls, nature of, 275
Viruses, Phytopathogenic, variations in, *see* Variations, in viruses
Viruses,
psittacosis, lymphogranuloma venerum group, 370–74
antigens common to, 371
carriers of, 370
cross immunity against, 371
and cytoplasmic inclusions in, 370
and neutralizing antibodies, 371, 372
pathogenicity of, 371
penicillin, use of against, 372–74
Viruses (*cont.*)
sulfadiazine, use of against, 372–74
Viruses, respiratory, 351–84

W

Water-oil emulsions, in active immunization, 296–305
action of, 303–5
and antibody formation, 299–302
in iso-allergic encephalitis, 298, 299
against malaria, 302, 303
against rickettsial infections, 302
against typhoid bacilli, 300
against virus infections, 301, 302

Y

Yeast, industrial production of, 162–64
bakers' yeast, 162, 164
food yeast, 163, 164
from molasses, 163
from sulfite waste, 164
from wood hydrolyzates, 163, 164